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J. LAURITZEN LINES

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The J. Lauritzen Polar Fleet

The Company's interest in Polar navigation is not of recent date. We long ago made a special point of providing an all-year-round service in Finnish waters, despite the ice difficulties encountered there every winter, and it was mainly on the basis of about 30 years' experience of navigation in those ice-filled waters that the now famous m.s. „KISTA DAN“ was built and laid the foundation of the Polar Fleet.

In the years 1955, 1956, and 1957 nine further units were built for this Polar fleet, and in 1959 and 1960 four more will be ready.

In 1950—51 when the projecting work for the „KISTA DAN“ was prepared, a most careful investigation of the working conditions of a Polar vessel was made.

The result of this investigation was embodied in the following main features of a Polar vessel.

1. Special type of hull form, stem and stern.
2. Large strength of hull, rudder, and propelling machinery.
3. A bridge arrangement for a good view, also of waters near stem and stern.
4. Ability of steering gears and propeller equipment give the vessel exceptionally good manoeuvring capability.

From the construction of Fritjof Nansen's wellknown vessel „FRAM“, in which he crossed the North Pole Basin in the years 1893—96, the form of hull which would give the vessel good protection against ice pressure was already known, and we therefore based the „KISTA DAN“'s lines on the knowledge provided by Nansen's brilliant construction.

Many alterations were of course introduced, the

„FRAM“ having been solely an exploring vessel, while the „KISTA DAN“ was required to operate as a combined cargo and passenger vessel.

In making use of the great advances in the construction of steel vessels made since Nansen built his ship of heavy timber, we decided to construct an all-welded steel vessel equipped with a strong engine able to give the vessel a good thrust under ice-breaking conditions.

For this special purpose the stem and stern were made of very strong constructions all welded and carefully tested by X-ray, and the stern area also gave good protection to the rudder as well as to the propeller by means of an ice knife and ice fins of the type fitted to all our Polar vessels.

The hull construction was made all welded, and comprised very strong shell plating, perfectly stiffened by heavy ice frames arranged in half the distance of normal frame spacing. This particular arrangement has introduced in the forepart of the vessel a local strength of shell which is approximately 16 times greater than a strength of a ship constructed in accordance with the requirements of the classification society.

The all-welded construction was introduced in order to secure the best possible protection against leakages, which always occur when rivetted vessels encounter heavy ice.

Although the bridge itself gives an excellent general view, a special „crow's nest“ is fitted in the top of the foremast. It is equipped with all navigating instruments, which provide a perfect view of the water and the ice conditions close to the vessel. The elevated position of this bridge also gives a far better view of ice than any radar set could provide.

From this crow's nest it is possible to carry out all manoeuvres, comprising the manoeuvring of the steering gear and revolutions of the main engine, as well as the pitch of the propeller.

This equipment is essential on vessels which operate in Polar regions, where the waters are choked with icebergs



The crow's nest of the THORA DAN.

and pack ice with thicknesses ranging from 10 to 50 feet. The length of the ships is therefore restricted, and a large rudder area is required, combined with outsize steering gear to provide double speed in manoeuvring the rudder.

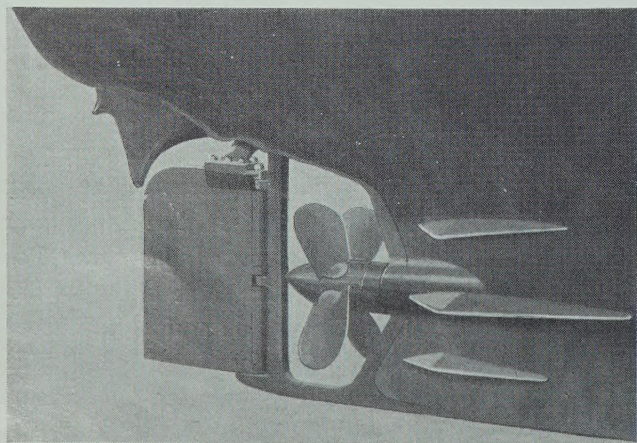
Quick reversing of the propeller thrust is also required, for which reason the KISTA DAN and four of her successors are equipped with a reversible-pitch propeller mechanism specially constructed for the purpose.

The requirements of this type of propeller and gear were:

- a. The propeller should be able to fit into the general strong shape of aperture with a solid rudder stern post and without any detachables, which always introduce weaknesses.
- b. The whole hydraulic mechanism should be arranged inside the hull, so as to provide good means of carrying out repairs, without having to go into drydock.
- c. The construction should be very strong, and able to withstand all known pressures.

In combination with this propeller gear, we also decided to build in a special safety arrangement for protecting the main engine against excessive torques.

The construction of the KISTA DAN was an experiment in every respect. We had no means of knowing whether there would be any employment for such a type,



The ice knife and the ice-fins of the PERLA DAN.

which would be uneconomic in ordinary trade, nor did we know exactly how the ship would fare in the ice.

The experience of the last six years however, in Arctic and Antarctic waters, prove her an outstanding success in navigating in ice-filled waters.

Experience gained with the KISTA DAN encouraged us to build two more vessels of this type, but somewhat larger and more powerful, namely the „MAGGA DAN“ and the „THALA DAN“ both of which can accommodate 36 passengers.

They are designed as sisterships, and they will all be capable of operating alone in the ice without the help of icebreakers.

With their long range of action they are ideally suited for service in the remote Arctic and Antarctic regions.

They are equipped with special emergency stores in the event of becoming ice-bound, and they also carry special emergency equipment such as sleeping bags, expedition rucksacks, snow goggles, knives, clothes, rubber boots, tents, pneumatic mattresses, tools, shutguns, rifles, etc.

These three vessels can be described as ice-breaking Polar vessels able to operate independently in Polar regions.

As the result of our experience with these special built vessels, we decided to adapt 11 more newbuildings to most of the features described above. These ships are between 2,700 and 5,000 tons d. w. and can best be described as cargo vessels capable of operating in ice-filled waters owing to their heavy ice-strengthening to hull and frame system far exceeding the requirements of the classification societies. They are all equipped with special protection for rudder and protection for rudder and propeller in the stern area, and also have the special stem and bow strengthening.

The vessels are allwelded, and are equipped with the fully enclosed crow's nest containing all navigating instruments, like the KISTA DAN.

The striking red colour which characterizes the Polar Fleet has a story of its own.



View from the crow's nest.

It started with the m. s. KISTA DAN, when her lifeboats were painted red some years ago, in order to see whether it would be easier to detect a red lifeboat than a grey one. As this proved so, the crow's nest on the foremast was also painted red, and then the deck, and finally the vessel itself. On the KISTA DAN's first voyage after the change from grey to red, the vessel was ordered to the position of the Norwegian sealer, JOPETER, which was ice-bound. During an ice reconnaissance flight by the Air Force's Catalina, Mr. Knud Lauritzen, who was on board the KISTA DAN, radioed the Catalina and asked the pilot to let him know when he first saw the KISTA DAN and when the JOPETER. Later, after having circled over the vessels, the pilot reported by telephone that, flying at an altitude of about 5,000 feet, he had first seen the KISTA DAN at a distance of 20 miles, but did not spot the JOPETER, which was grey, until he was four miles from her.





m. s. KISTA DAN

Built: May 1952 at Aalborg Yard, Denmark.

Past Performance:

- 1952: Trading West and East Greenland.
- 1952/1953: Voyage to Antarctic in charter to an American Film Producer.
(Picture: "Hell below Zero").
- 1953: Trading West and East Greenland.
- 1953/1954: Antarctic Trading for the Australian National Antarctic Research Expedition.
- 1954: Trading West and East Greenland.
- 1954/1955: Antarctic Trading for A. N. A. R. E.
- 1955: Trading West and East Greenland.
- 1955/1956: Antarctic Trading for A. N. A. R. E.
- 1956: Trading West and East Greenland.
- 1956/1957: Antarctic Trading for A. N. A. R. E.
- 1957: Trading West and East Greenland.
- 1958: Trading West and East Greenland.

Principal Dimensions:

m. s. Kista Dan

Length o. a.	212'10 1/2"
Length p. p.	185'0"
Breadth extreme	36'9"
Draft fully loaded	19'6"
Deadweight (max. 12 pass.) all told	1,350 ts. engl. S. Frb.
Deadweight (max. 24 pass.) all told	725 ts. engl. S. Frb.
Main Motor 1 of B & W type 635-VF-62	1,560 IHP
Aux. Generators 2 of B & W 325-MTH-40	2 X 120 KW
Service speed fully loaded	approx. 11 1/2 knots
Daily consumption	approx. 4 tons diesel oil
Bunker Capacity	approx. 249 tons
Cubic Capacity: Lower holds	approx. 29,000 cub.ft. grain
Tween Decks	approx. 26,000 cub.ft. grain
Special Cargo Room	approx. 1,800 cub.ft.
total: 56,800 cub. ft.	

Hatches & Winches:

No.	Size of Hatch	Winches	Derricks
1	24'0" X 14'6"	2 of 3 tons	2 of 5 tons
2	26' X 14'6"	2 of 3 tons	2 of 5 tons

One 20 tons derrick at hatch No. 2.

Steel hatch covers on all weather deck hatches.

Ventilation of holds: approx. 15 times/hour.

Wireless & Navigating device:

Wireless transmitter, wireless telephone, auto alarm, direction finder, echo-sounding device (two sets). Decca. Radar (two sets). Gyro and Automatic pilot.

Ship's radio station is very powerful. While in the Antarctic, the vessel has daily communication with Radio Denmark.

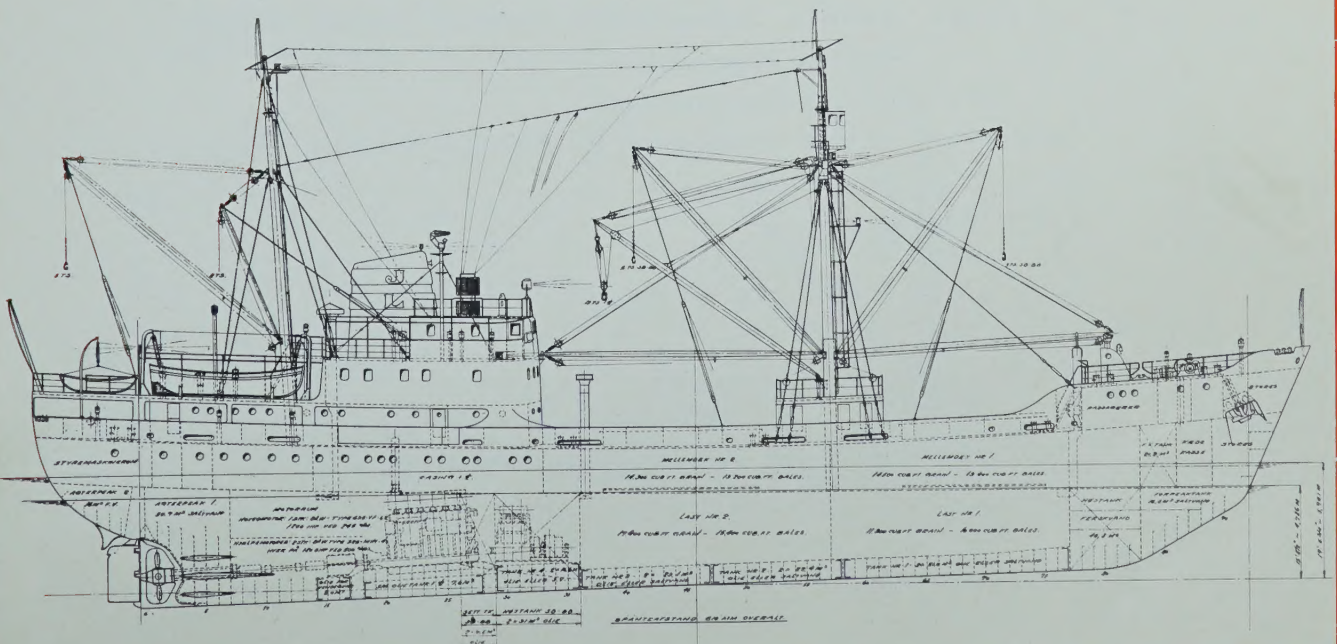
Passenger Capacity: Two 2-berth cabins.

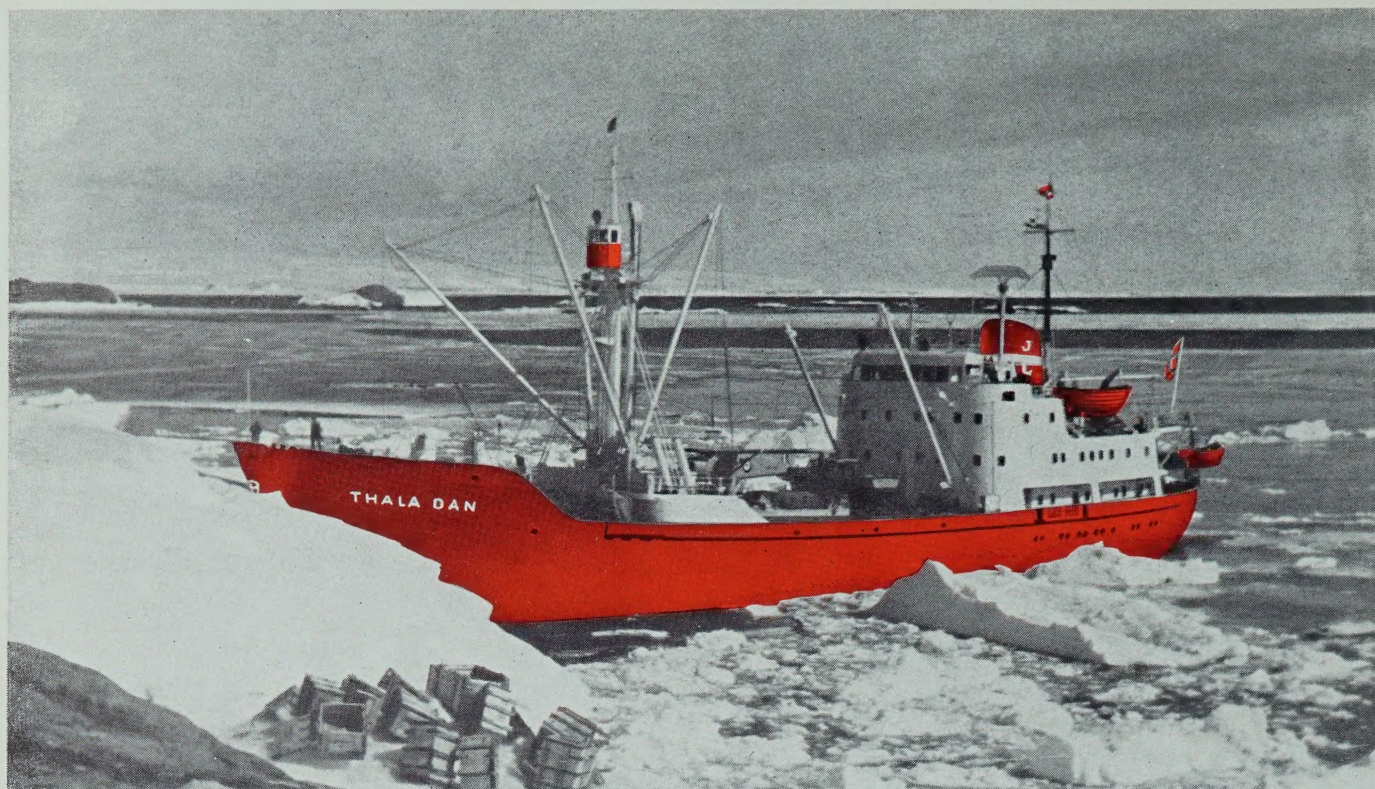
Two 3-berth cabins.

Two 6-berth cabins.

Hospital: One 2-berth cabin.

Motorboat: One 17-foot motor towing boat.





m. s. THALA DAN

Past Performance:

1957/1958: Antarctic Trading for the Australian National Antarctic Research Expedition.

1958: Trading East Greenland.

1958/1959: Antarctic Trading for the Australian National Antarctic Research Expedition.



m. s. MAGGA DAN

Past Performance:

- 1956/1957: Antarctic Trading for the British Transantarctic and Royal Society Expeditions.
- 1957: Trading North Canadian and West Greenland Waters.
- 1958: Trading North Canadian and West and East Greenland Waters.
- 1958/1959: Antarctic Trading for the Australian National Antarctic Research Expedition.

m. s. Magga Dan**Principal Dimensions:**

Length o. a.	246'6"
Length p. p.	215'0"
Breadth extreme	45'0"
Draft fully loaded	20'7"
Deadweight (max. 12 pass.) all told	1855 ts. engl. S. Frb.
Deadweight (max. 36 pass.) all told	1640 ts. engl. S. Frb.
Main Motor 1 of B & W type 735-VBF-62	2020 IHB
Aux. generators 4 of B & W type 325-MTBH-40	4 × 170 KW.
Service speed fully loaded	approx. 12 knots.
Daily consumption	approx. 7 tons diesel oil. (excl. consumption of refr. machinery).
Bunker Capacity	approx. 450 tons.
Cubic Capacity: Lower holds	approx. 30.000 cub.ft. }
Tween Decks	approx. 32.500 cub.ft. }
(cub.ft. insulated and refrigerated space ÷ 26° C i. e. ÷ 15° F. Under tropical conditions).	total: 62.500 cub. ft.

Hatches & Winches:

No.	Size of Hatch	Winches	Derricks
1	18'6" × 15'	2 of 3 tons	2 of 5 tons
2	24'7" × 15'	2 of 5 tons	2 of 5 tons
3	18'6" × 15'	2 of 3 tons	2 of 5 tons

One 35 tons derrick at No. 2 hatch.

Steel hatch covers on all weather deck hatches.

Ventilation of holds approx. 65 times/hour.

Cargo control:

Electric long distance temperature indicating on bridge and in engine room.

Installation for ammonia and carbon-dioxide control.

Ozono- and air conditioning plants.

Wireless & Navigating device:

Wireless transmitter, Wireless telephone, Direction finder, Echo-sounder (two sets).

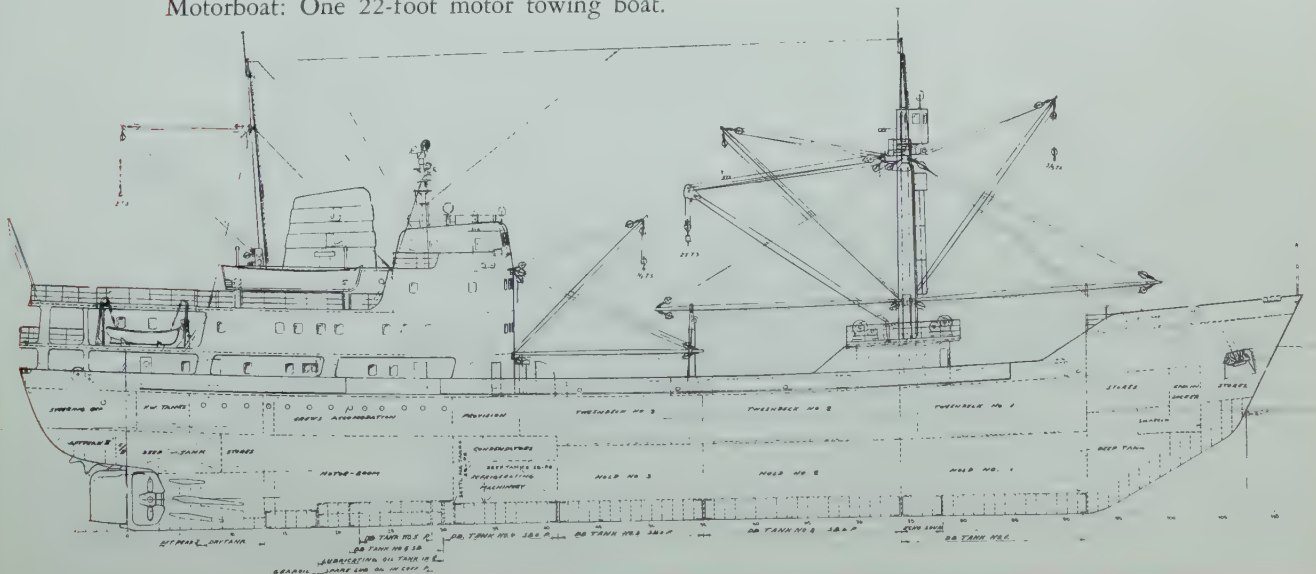
Gyro-compass with automatic steering. Two radars 10 cm. and 3 cm. Electric log. Decca.

Ship's radio station is very powerful. While in the Antarctic, the vessel has daily communication with Radio Denmark.

Passenger Capacity: Three 2-berth cabins, seven 4-berth cabins.

Hospital: One 2-berth cabin.

Motorboat: One 22-foot motor towing boat.





m. s. THORA DAN
and
m. s. HELGA DAN

Past Performance:

Summer 1957: Trading North East Greenland.

Winter 1957/1958: Trading Finnish Waters.

Summer 1958: Trading North East Greenland.

Winter 1958/1959: Trading Finnish Waters.

m. s. Thora Dan and m. s. Helga Dan**Principal Dimensions:**

Length o. a.	350' 2-1/16"
Length p. p.	322' 10-1/16"
Breadth extreme	51' 10-1/16"
Draft fully loaded	24' 2"
Deadweight all told.	5050 ts. engl. S. Frb.
Main Motor 1 of B & W type 750-VTBF-110	4500 IHP.
Aux. Generators 3 of B & W type 525-MTH-40	3 × 200 KW.
Service speed fully loaded	approx. 14½ knots.
Daily consumption	approx. 12 tons light fuel oil (Diesel oil for manoeuvres).
Bunker Capacity	approx. 775 tons.
Cubic Capacity: Lower holds	approx. 131,520 cub.ft. grain.
Tween Decks	approx. 121,110 cub.ft. grain. } total: 252.630 cub. ft.

Hatches & Winches:

No.	Size of Hatch	Winches	Derricks
1	21'2" × 20'0"	2 of 5 tons	2 of 5 tons
2	27'11½" × 20'0"	2 of 8 tons	2 of 10 tons
3	27'11½" × 20'0"	2 of 5 tons	2 of 5 tons
4	27'11½" × 20'0"	2 of 5 tons	2 of 10 tons
5	20'11½" × 20'0"	2 of 5 tons	2 of 5 tons

One of 35 ts. derrick at No. 2 hatch.

Steel hatch covers on all weather deck hatches.

Ventilation of holds approx. 14 times/hour.

Wireless & Navigating device:

Wireless transmitter, Wireless telephone, Direction-finder, Echo-sounder.

Gyro-compass with automatic steering control, Radar,

Electric log, Decca.

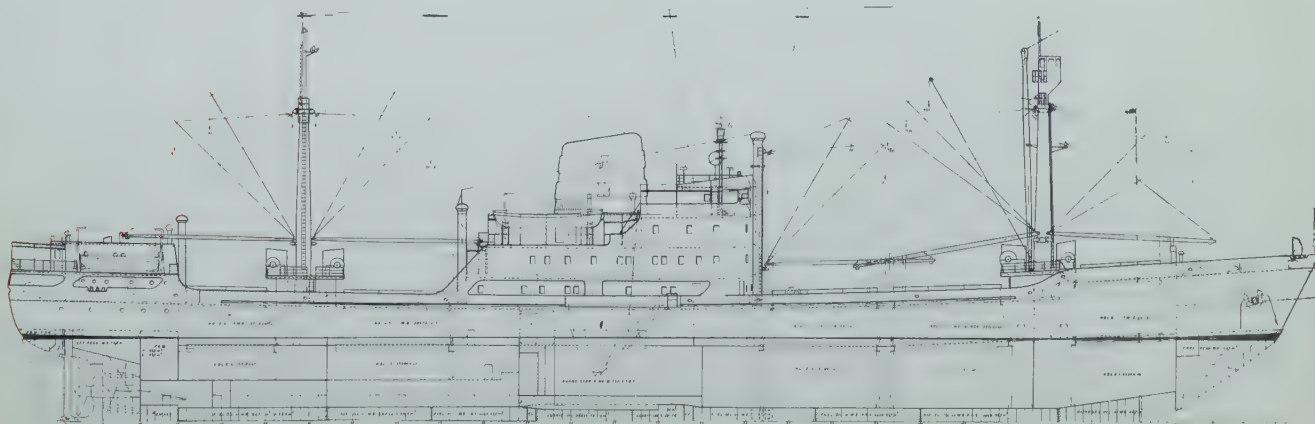
Passenger Capacity: 2 × 4-berth cabins with bath.

1 × 3-berth cabin with bath.

Customs: One 4 berth-cabin.

Hospital: With 3 berths.

Motorboat: One 22-foot motor towing boat.





s. s. SILJA DAN

Past Performance:

Winter 1951/1952: Trading Finnish Waters.

Winter 1952/1953: Trading Finnish Waters.

Winter 1953/1954: Trading Finnish Waters.

Winter 1954/1955: Trading Finnish Waters.

Summer 1955: Trading North East Greenland.

Winter 1955/1956: Trading Finnish Waters.

Winter 1956/1957: Trading Finnish Waters.

Winter 1957/1958: Trading Finnish Waters.

Winter 1958/1959: Trading Finnish Waters.

s. s. Silja Dan**Principal Dimensions:**

Length o. a.	320'7 $\frac{3}{4}$ "
Length p. p.	300'0"
Breadth extreme	46'7"
Draft fully loaded	21'4"
Deadweight all told.	4250 ts. engl. S. Frb.
Main Engine 1 Atlas steam engine	2100 IHP
Aux. Machinery:	
Two 1-cyl. „Atlas“ steam engine each	40 KW
One 3-cyl. „Bukh“ diesel engine	20 KW
One shaft dynamo	20 KW
Service speed fully loaded	approx. 12 $\frac{1}{2}$ knots.
Daily consumption	approx. 15 tons fuel oil.
Bunker Capacity	approx. 665 tons.
Cubic Capacity: Lower holds	approx. 133,920 cub.ft. grain. }
Tween Decks	approx. 109,430 cub.ft. grain. }
total: 242,350 cub. ft.	

Hatches & Winches:

No.	Size of Hatch	Winches	Derricks
1	22'5 $\frac{1}{2}$ " × 20'0"	2 of 3 tons	2 of 5 tons
2	27'11 $\frac{1}{2}$ " × 20'0"	2 of 3 tons	2 of 5 tons
3	27'11 $\frac{1}{2}$ " × 20'0"	2 of 3 tons	2 of 5 tons
4	25'7 $\frac{1}{2}$ " × 20'0"	2 of 3 tons	2 of 5 tons
5	23'3 $\frac{1}{2}$ " × 20'0"	2 of 3 tons	2 of 5 tons

One 25 tons derrick at hatch No. 2.

One 15 tons derrick at hatch No. 4.

Steel hatch covers on all weather deck hatches.

Ventilation of holds approx. 15 times/hour.

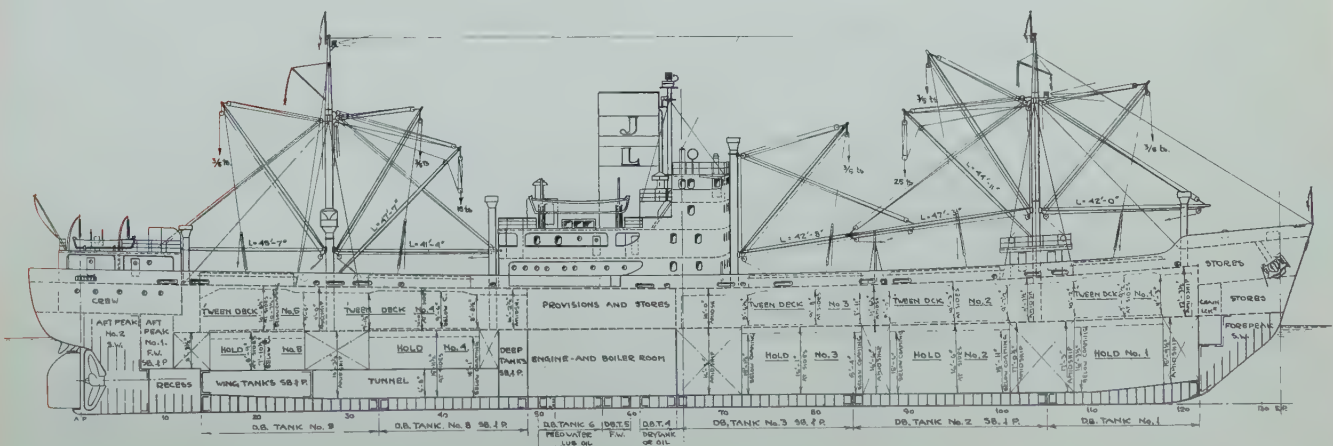
Wireless & Navigating device:

Wireless transmitter. Wireless telephone. Direction-finder. Echo-sounder. Gyro-compass with automatic steering control. Electric log. Radar. Decca.

Passenger Capacity: One 2-berth cabin.

Pilot room with 2 berths.

Hospital: Two cabins, each with two berths and sep. bath.





m. s. FENJA DAN, m. s. MANJA DAN,
m. s. RIMJA DAN

Past Performance:

Winter 1958/1959: Trading Finnish Waters.

m. s. Fenja Dan, m. s. Manja Dan, m. s. Rimja Dan**Principal Dimensions:**

Length o. a.	323'—2"
Length p. p.	295'—3 $\frac{3}{8}$ "
Breadth extreme	47'—6 $\frac{7}{8}$ "
Draft fully loaded	22' 0"
Deadweight all told.	4225 ts. engl. S. Frb.
Main Motor 1 of B & W type 550-VTBF-110.	3250 IHP.
Aux. Generators 3 of B & W type 325-MTBH-40.	3 \times 170 KW.
Service speed fully loaded	approx. 13 knots.
Daily consumption	approx. 10 tons light fuel oil (Diesel oil for manoeuvres).
Bunker Capacity	approx. 800 tons.
Cubic Capacity: Lower holds	approx. 126,000 cub.ft. grain.
Tween Decks	approx. 95,000 cub.ft. grain. } total: 221,000 cub. ft.

Hatches & Winches:

No.	Size of Hatch	Winches	Derricks
1	33'6" \times 20'	2 of 5 tons	2 of 5 tons
2	60'6" \times 20'	{ 2 of 5 tons 2 of 5 tons	2 of 5 tons
3	32'2" \times 20'		2 of 5 tons

One of 25 ts. at hatch No. 2.

Steel hatch covers on all weather deck hatches.

Ventilation of holds 15 times pr. hour.

Wireless & Navigating device:

Wireless transmitter, Wireless telephone, Direction-finder, Echo-sounder.

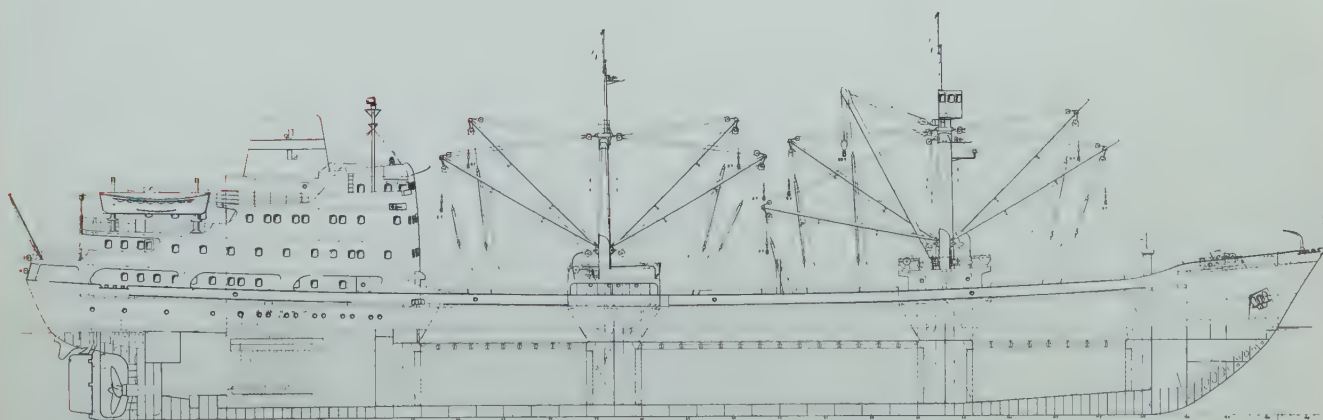
Gyro-compass with automatic steering control, Radar,

Electric log, Decca.

Passenger capacity: Four 3-berth cabins with bath.

Hospital: One 3-berth cabin.

Motorboat: One 22-foot motor towing boat.





m.s. ANITA DAN, m.s. FRIDA DAN,
m.s. ERIKA DAN

Past Performance:

Summer 1957: Trading North East Greenland.

Winter 1957/1958: Trading Finnish Waters.

Summer 1958: Trading North East Greenland.

Winter 1958/1959: Trading Finnish Waters.

m. s. Anita Dan, m. s. Frida Dan and m. s. Erika Dan**Principal Dimensions:**

Length o. a.	298'7"
Length p. p.	273'1"
Breadth extreme	46'0"
Draft fully loaded	21' 0"
Deadweight all told.	3225 ts. engl. S. Frb.
Main Motor 1 of B & W type 550-VTBF-110.	3220 IHP.
Aux. Generators 3 of B & W type 325-MTBH-40.	3 × 170 KW.
Service speed fully loaded.	abt. 14 knots.
Daily consumption.	abt. 8½ ts. light fuel oil (Diesel oil for manoeuvres).
Bunker Capacity.	approx. 514 tons.
Cubic Capacity: Lower holds	approx. 83,500 cub.ft. grain.
Tween Decks	approx. 75,000 - - }
	total: 158,500 cub. ft.

Hatches & Winches:

No.	Size of Hatch	Winches	Derricks
1	23'10" × 20'0"	2 of 5 tons	2 of 5 tons
2	28'0" × 2'00"	2 of 5 tons	2 of 5 tons
3	26'0" × 20'0"	2 of 5 tons	2 of 5 tons
4	26'0" × 20'0"	2 of 5 tons	2 of 5 tons

One of 25 ts. derrick at No. 2 hatch.

Steel hatch covers on all weather deck hatches.

Ventilation of holds approx. 19 times/hour.

Wireless & Navigating device:

Wireless transmitter. Wireless telephone, Direction-finder, Echo-sounder.

Gyro-compass with automatic steering control, Radar,

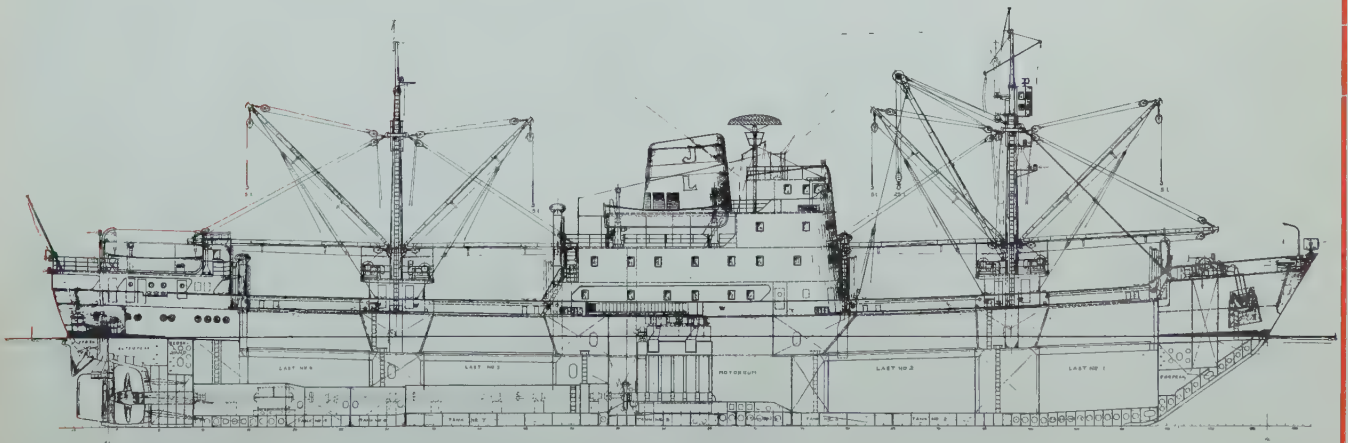
Electric log, Decca.

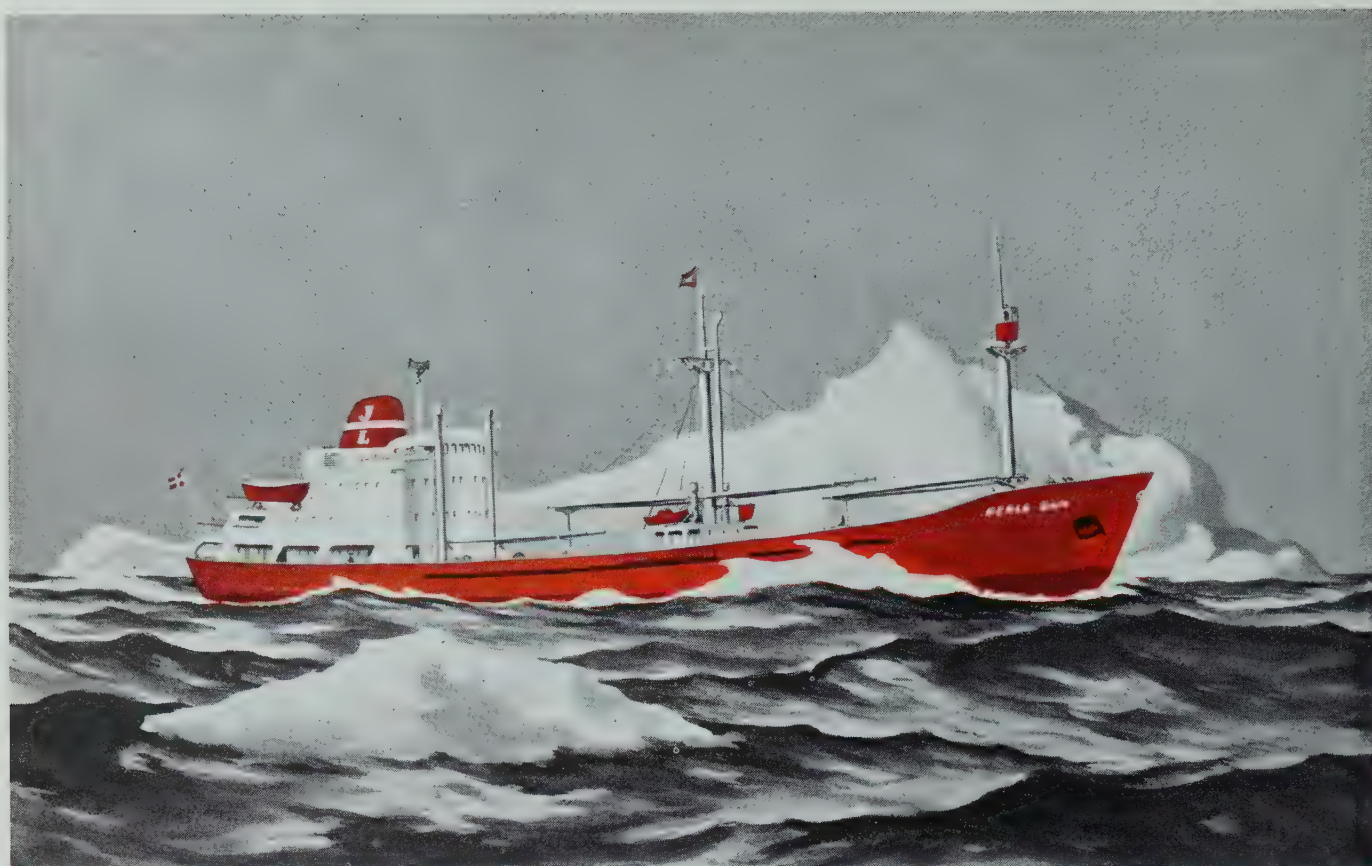
Passenger Capacity: 3 × 4-berth cabins with bath.

Customs: One 4-berth cabin.

Hospital: With 4 berths.

Motorboat: One 22-foot motor towing boat.





m. s. PERLA DAN
and
m. s. VARLA DAN

Past Performance:

Winter 1958/1959: Trading Finnish Waters.

m. s. Perla Dan and m. s. Varla Dan**Principal Dimensions:**

Length o. a.	275'0"
Length p. p.	250'0"
Breadth extreme	42'6"
Draft fully loaded	19'9"
Deadweight all told.	2700 ts. engl. S. Frb.
Main Motor 1 of B & W type 735-VBF-62.	2020 IHP.
Aux. Generators 3 of B & W type 325-MTBH-40.	3 × 170 KW.
Service speed fully loaded	approx. 12,5 knots.
Daily consumption	approx. 7 tons Diesel oil.
Bunker Capacity	approx. 375 tons.
Cubic Capacity: Lower holds	approx. 77,000 cub.ft. grain.
Tween Decks	approx. 55,000 cub.ft. grain.
} total: 132.000 cub. ft.	

Hatches & Winches:

No.	Size of Hatch	Winches	Derricks
1	58' × 20'	2 of 5 tons	2 of 5 tons
		2 of 5 tons	2 of 5 tons
2	56' × 20'	2 of 5 tons	2 of 5 tons
		2 of 5 tons	2 of 5 tons

One of 30 ts. at hatch No. 1.

Steel hatch covers on all weather deck hatches.

Ventilation of holds 15 times per hour.

Wireless & Navigating device:

Wireless transmitter. Wireless telephone, Direction-finder, Echo-sounder,

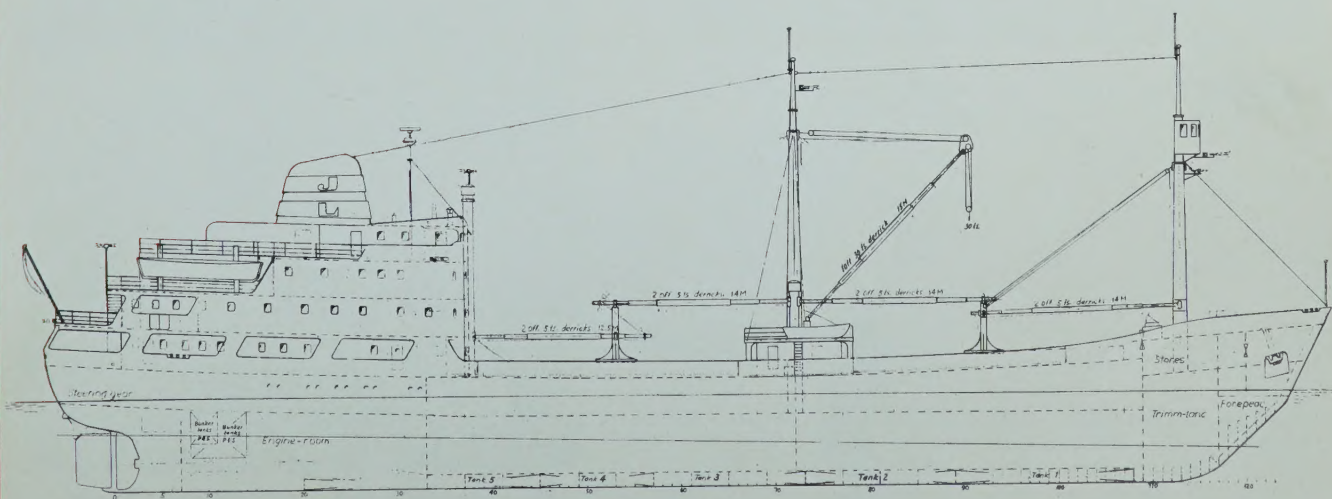
Gyro-compass with automatic steering control, Radar.

Electric log. Decca.

Passenger capacity: Two 4-berth cabins.

Hospital: One 2-berth cabin.

Motorboat: One 17-foot motor towing boat.



m. s. THALA DAN paid a short visit to the Russian base at Mirny in 1958. The picture shows the forepart of the ship close to the edge of the ice, together with a view of the camp.



MAGGA DAN at Halley Bay. Flanking the bay are high ice cliffs from which hang huge icicles.



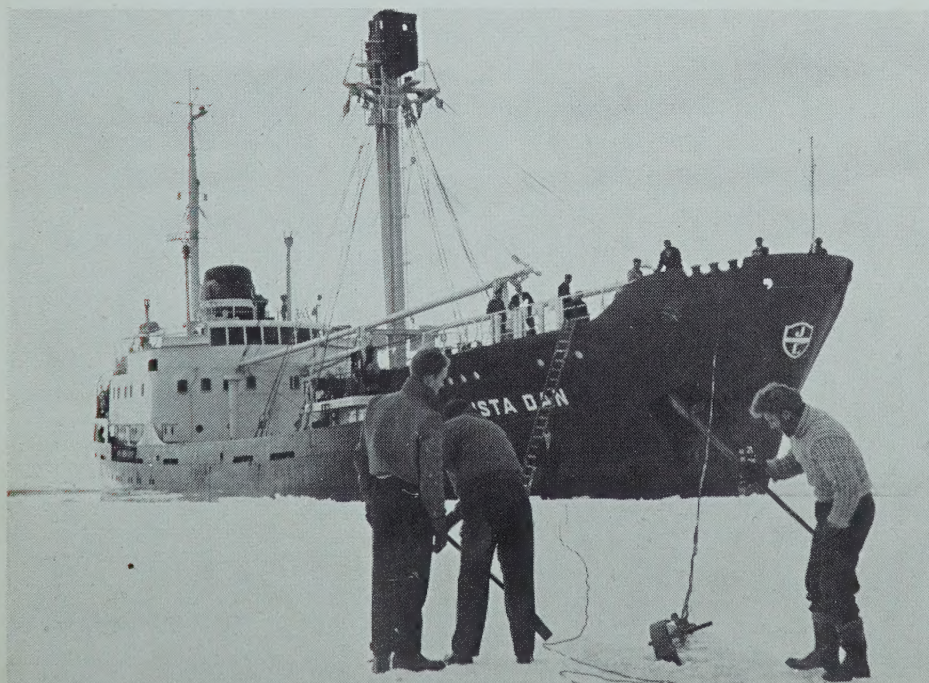
View over the ice from the crow's nest of the KISTA DAN.



MAGGA DAN in the pack ice.



m. s. THALA DAN off Mestersvig.



During her return voyage from Greenland in 1957 the KISTA DAN was icebound for two weeks.



J. LAURITZEN LINES

COPENHAGEN, DENMARK

		Tons d. w. all told abt.	Cargo space cub.ft. grain approx.	Signal letters:
<i>Polar vessels</i>				
m. s. THORA	DAN.....	5,050	253,000	OUTP
m. s. HELGA	DAN.....	5,050	253,000	OWLB
s. s. SILJA	DAN.....	4,250	243,000	OXTI
m. s. FENJA	DAN.....	4,225	221,000	OXIZ
m. s. MANJA	DAN.....	4,225	221,000	
m. s. RIMJA	DAN.....	4,225	221,000	
m. s. ANITA	DAN.....	3,225	158,000	OUIP
m. s. FRIDA	DAN.....	3,225	159,000	OUSY
m. s. ERIKA	DAN.....	3,175	159,000	OXDY
m. s. PERLA	DAN.....	2,700	132,000	OWQI
m. s. VARLA	DAN.....	2,700	132,000	
m. s. THALA	DAN.....	2,130	95,000	OWRX
m. s. MAGGA	DAN.....	1,850	62,500*	OXVW
m. s. KISTA	DAN.....	1,300	55,000	OYJR

			Refrigerated space cub.ft. approx.	
<i>Refrigerated Fruit Vessels</i>				
m. s. ARABIAN REEFER.....		5,850	223,000	OWIU
m. s. BELGIAN REEFER.....		5,850	223,000	OXDG
m. s. CHILEAN REEFER.....		5,500	242,000	
m. s. MEXICAN REEFER.....		3,900	225,000	OYPE
m. s. BRAZILIAN REEFER.....		3,900	225,000	OYRP
m. s. PERUVIAN REEFER.....		3,860	224,000	OYUX
m. s. INDIAN REEFER.....		3,400	188,000	OZEK
m. s. ARGENTINEAN REEFER.....		3,355	188,000	OZFG
m. s. EGYPTIAN REEFER.....		3,625	150,000	OZCH
m. s. AFRICAN REEFER.....		2,420	125,000	OYDH

			tank space cub.ft. approx.	
<i>Tankers</i>				
m. t. BERTA	DAN.....	16,180	779,000	OYPL
m. t. PETRA	DAN.....	16,380	779,000	OYOC
m. t. NERMA	DAN.....	15,820	764,000	OXWJ

			cargo space cub.ft. grain approx.	
<i>Cargo Vessels</i>				
m. s. GERDA	DAN.....	7,900	500,000	OXFH
m. s. MARNA	DAN.....	7,900	500,000	OXFJ
m. s. PAULA	DAN.....	7,900	500,000	OXFI
m. s. HEDDA	DAN.....	7,855	500,000	OYGU
m. s. TENNA	DAN.....	7,855	500,000	OUNE
m. s. TILDA	DAN.....	7,590	395,000	OYWA
m. s. BELLA	DAN.....	6,110	349,000	OXEN
m. s. GRETA	DAN.....	6,100	343,000	OYIQ
m. s. RUTHA	DAN.....	3,880	227,000	OUML
m. s. JONNA	DAN.....	3,800	221,000	OYSM
m. s. LYDIA	DAN.....	3,475	230,000	OYYJ
s. s. JELVA	DAN.....	3,400	170,000	OZYE
s. s. LAURA	DAN.....	2,360	148,000	OXKH
s. s. MARIA	DAN.....	2,255	131,000	OYYL
s. s. LILIAN	DAN.....	1,970	109,000	OXDH
s. s. LINDA	DAN.....	1,725	106,000	OYYH
m. s. INGGA	DAN.....	1,365	65,600	OYIC
m. s. KARNA	DAN.....	1,365	65,600	OXWK
m. s. HANNA	DAN.....	1,365	65,600	OUSQ

J. Lauritzen's Seamen's School, Svendborg.
Training vessel m. sc. LILLA DAN 140 tons d. w.

Training boat BETTA DAN.

Survey boats NOONA DAN, NETTA DAN and MALIA DAN

Note: The above information concerning cubic capacity and deadweight should not be used for chartering negotiations, etc.
* refrigerated space.